CLAIMS:

1. A color dot code system, representing various types of data such as documents and audio data by color code trains, generating color dot images based on the color dot trains, managing the various types of original based on the color dot images data in a computer, and furthermore, recording and storing the various types of data by drawing the color dot images on various types of media such as paper and wood, and restoring the various types of data from the recorded and stored color dot images; comprising

a means for representing various types of data by a color code train;

a means for generating a color dot image corresponding to the color code train;

a means for managing the various types of data in a computer using the color dot image;

a means for recording and storing the color dot image on a medium such as paper through a method of printing, drawing or the like;

a means for producing an article as fashion accessory or the like or clothing using balls of colored glass balls, stone balls or the like, yarn, fabric or the like, relating to the color dot image;

a means for reading the recorded and stored color dot image using a reading device as a scanner, a camera or the like;

a means for processing the color dot images read by the reading means using a color dot code processor; and

a means for restoring the various types of data such as documents and audio data from the color dot image using the color dot code processor.

2. The color dot code system according to claim 1, wherein character of basic colors for the color code train is appropriate to quality of the printer for recording and storing, quality of the recording media, and precision of the device

for reading the color dot images recorded on the media, for example, when printing and recording on paper using printing ink or the like, the four primary colors of the printing ink, cyan (C), magenta (M), yellow (Y), and black (K), are used, alternatively, blue is used instead of cyan (C) and red is used instead of magenta (M); furthermore, when the printing paper, printer, and reading device have high qualities, a multiplicity of colors such as 8 colors or 16 colors are used in addition to augment the 4 colors, and when data is managed in the computer, the kind of colors suitable for favorable display of images are used.

3. The color dot code system according to claim 1, wherein the means for representing various types of data by the color code train represents the colors by binary data used in the computer or the like corresponding to the number of the colors to be used, so that when the above-described four colors of cyan (C), magenta (M), yellow (Y), and black (K) are used, the four colors are represented by every 2-bit expression.

4. The color dot code system according to claim 1, wherein the means for recording and storing the color dot images by printing or drawing on the various recording media such as paper, wood, glass, fabric, and plastic determines size of the color dots and the do-to-dot intervals in response to quality of the media and precision of the recording device for the media, so that when a current inkjet printer for personal computers prints out on a printer paper, in consideration of the printer paper quality and the printing precision of the ink jet printer, the size of the printing color dot is set to, for example, no less than 0.05 mm in height and no less than 0.05 mm in width, and the dot-to-dot interval is set to, for example, no less than 0.05 mm in the transverse direction (i.e., the scanning direction of the printer head) and no less than 0.05 mm in the lateral direction (i.e., the direction of paper feed).

5. The color dot code system according to claim 1, wherein the means

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for reading the color dot images recorded and stored on various media such as paper is of contact type or non-contact type, and magnifying type using a lens system, the contact type including a scanner, a hand-held scanner or the like used as a peripheral device of a personal computer, and the non-contact type including a digital camera, a video camera, or a mobile phone or a hand-held terminal attached with a camera.

6. The color dot code system according to claim 1, wherein the color dot image has an arbitrary shape, and the dots have arbitrary size individually.

7. The color dot code system according to claim 1, further comprising a data management system for performing data management in a computer utilizing the color dot images.

8. The color dot code system according to claim 1, providing a mixture of direct data as written characters and the like comprehensible by humans as it is and indirect data in the form of the color dot images converted from various types of data, performing data management in a computer with the data mixture as a single file in the same database, and when printing thereof, printing the direct data and indirect data in mixed form on the same paper surface as to fuse the direct data and the indirect data; comprising

a means for managing various forms of data by restoring and converting to the direct data from the indirect data,

a means for reading the color dot image of the printed indirect data portion using a camera, a scanner, or the like, and

a means restoring the color dot image corresponding to the scanned indirect image and performing conversion thereof into direct data comprehensible to humans.

9. The color dot code system according to claim 1, printing on printed matter as contract documents or the like a mixture of direct data represented by

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the contract document and indirect data in the form of a colored (including monochrome) dot image converted from an electronic certificate proving the genuine nature of the contract or a document encrypted using the contracted party's secret key, thus fusing the direct data and indirect data; further comprising

a means for reading the colored (including monochrome) dot image corresponding to the indirect data using a camera, a scanner, or the like, and

a means for authenticating the printed matter such as contract document being genuine by decoding the read indirect data, performing conversion thereof to direct data, and restoring the electronic certificate or the encrypted document.

10. The color dot code system according to claim 1, further comprising a means for realizing a secret section through the color dot images in printed matter or in internal computer data to be referenced by a multiplicity of people intended to be referenced by concerned parties only and not by third parties, and a means for encrypting a secret section within printed matter using the public key of the owner or the object person or the common key of a group section, and representing the encrypted data as indirect data using the color dot image, the secret section being intended to remain confidential within printed matter that may possibly be readily exposed to or referenced by third parties.

11. A medium such as paper, wood, glass or the like whereon indirect data expressed by a color dot image is printed or direct data and indirect data are both printed.

12. A program for realizing on a computer the color dot code system according to claim 1, claim 2, claim 3, claim 4, claim 5, claim 6, claim 7, claim 8, claim 9, or claim 10.